53 ~~33~~. (Amended) Aqueous polysilicate microgel having a SiO_2 content of at least 17.5% by weight [and], a molar ratio of SiO_2 to Na_2O of from 5:1 to 20:1, and silica-based particles with a size of about 1 to 2 nm in diameter which are linked together in chains or networks to form three-dimensional structures.

69 58 ~~45~~. (Amended) The process of claim [1] ~~36~~, wherein the aqueous polysilicate microgel obtained has a SiO_2 content of at least 5% by weight.

70 58 ~~46~~. (Amended) The process of claim [1] ~~36~~, wherein the polysilicate microgel has a specific surface area of at least 1000 m^2/g.

REMARKS

The present response amends claims 2, 9, 33, 45 and 46 without the addition of new matter thereby, cancels claim 34 without prejudice and requests reconsideration of the rejected claims. Presently, claims 1-33 and 35-81 are pending.

Claims 45 and 46 are each amended to depend from claim 36, otherwise they would duplicate claims 6 and 7, respectively.

The allowance of claims 1, 3-8, 10-32, 36-71, and 76-81 is gratefully acknowledged. Also, notification of the allowability of objected to claims 73-75 in independent form is appreciated. However, for the reasons outlined below, it is respectfully submitted that these claims are allowable without being rewritten in independent form.

Claims 33-35 and 72 are rejected under 35 U.S.C. 103(a) for allegedly being obvious based on Arika. This rejection is respectfully traversed with respect to pending claims 33, 35 and 72.

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Independent claim 33 is an "[a]queous polysilicate microgel having a SiO_2 content of at least 17.5% by weight, a molar ratio of SiO_2 to Na_2O of from 5:1 to 20:1, and silica-based particles with a size of about 1 to 2 nm in diameter which are linked together in chains or networks to form three-dimensional structures."

In contrast to the claimed invention, the gel in Arika is significantly larger, over 10^3 times larger, than the claimed gel. The gel in Arika is "characterized by having a mean diameter of 3-20 μm", see the abstract., while the gel in the claimed invention has "silica-based particles with a size of about 1 to 2 nm in diameter." Further, in example 1, Arika's spherical particles are 5 to 20 μm in diameter. Col. 4, ll. 24-25. Arika desires the mean diameter of its silica gel particles to be about 10 μm. Col. 3, ll. 43-51 and col. 4, Table 1. Thus, Arika does not disclose the claimed aqueous polysilicate microgel with a combination of the following claimed elements: "a SiO_2 content of at least 17.5% by weight, a molar ratio of SiO_2 to Na_2O of from 5:1 to 20:1, and silica-based particles with a size of about 1 to 2 nm in diameter which are linked together in chains or networks to form three-dimensional structures."

The Office Action refers to Arika's disclosure of the gel being made from SiO_2 having a primary particle diameter not larger than 6nm. It is respectfully submitted that while the gel might be made from SiO_2 having a primary particle diameter not larger than 6nm, Arika's resulting silica gel particles are much larger, over 10^3 times larger, than the claimed gel, as discussed above.

It is contended in the Office Action that the product in Arika would, when dried, have a SiO_2 content of at least 17.5% by weight and that it would be anionic. It is respectfully submitted that such speculation is not supported by Arika's disclosure which nowhere refers to the SiO_2 content.

Independent claim 33 is allowable based on Arika for reciting a silica gel with a combination of the following claimed elements: "a SiO_2 content of at least 17.5% by weight, a molar ratio of SiO_2 to Na_2O of from 5:1 to 20:1, and silica-based particles with a size of about 1 to 2 nm in diameter which are linked together in chains or networks to form three-dimensional structures." Claims 35 and 72, which depend from claim 33, are allowable for the reasons claim 33 is allowable as well as for the additional respective recitations in these claims of a polysilicate microgel having a specific surface area of at least 1000 m^2/g and the aqueous polysilicate microgel being anionic.

Further, claims 73-75, which depend from claim 33, are allowable for the reasons claim 33 is allowable as well as for the additional recitations in these claims, the patentablitiy of which is acknowledged in the Office Action.

In accordance with the above discussion, it is respectfully submitted that claims 33, 35 and 72-75 are allowable and it is requested that the rejection of claims 33, 35 and 72 be withdrawn and that the objection of claims 73-75 be withdrawn.

Claims 2 and 9 are rejected under 35 U.S.C. 112, second paragraph, for not being in Markush group format. These claims are amended herein to clarify that the type of anion in the metal salt is being claimed in the alternative, but that the form of the alternative expression is not a Markush group. A Markush group is only "[o]ne acceptable form of alternative expression." MPEP 2173.05(h). It is respectfully submitted that it is acceptable for claims 2 and 9 to recite " wherein ... the anion is hydroxide, borate, nitrate or acetate" pursuant to MPEP 2173.05(h) which states that alternative expressions using "or", such as "wherein R is A, B, C or D", are appropriate. MPEP 2173.05(h). accordingly, withdrawal of the rejection under 35 U.S.C. 112, second paragraph, is requested.

In accordance with the above, it is respectfully submitted that all pending claims are in condition for allowance and notice to that effect is earnestly solicited.

Respectfully submitted,

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